

CLAIMS

1. An interface enabling a user to determine optimum prices of products for sale, comprising:

a scenario/results processor, configured to enable a user to prescribe an optimization scenario, and configured to present the optimum prices to said user, wherein the optimum prices are determined by execution of said optimization scenario, and wherein said optimum prices are determined based upon estimated product demand and calculated activity based costs, said scenario/results processor comprising:

an input/output processor, configured to acquire data corresponding to said optimization scenario from said user, and configured to distribute optimization results to said user; and

a scenario controller, coupled to said
input/output processor, configured to control
acquisition of said data and distribution of
said optimization results in accordance with
a price optimization procedure, wherein said
price optimization procedure is configured to
relax constraints of lower priority
conflicting rules to render said optimization
scenario feasible.

2. The apparatus as recited in claim 1, wherein said data is acquired from said user over the Internet via a packet-switched protocol.
3. The apparatus as recited in claim 2 wherein said data is acquired from a source electronic file and said optimization results are distributed to a destination electronic file, said electronic files being designated by said user.
4. The apparatus as recited in claim 1, wherein said input/output processor comprises:

a template controller, configured to provide first price optimization templates and second price optimization templates, wherein said price optimization templates are presented to said user to allow for prescription of said optimization scenario, and for distribution of said optimization results; and

a command interpreter; configured to extract commands from said first price optimization templates executed by said user, and configured to populate said second price optimization templates according to result data provided for presentation to said user.

5. The apparatus as recited in claim 4, wherein said first and second price optimization templates are provided according to hypertext markup language (HTML).
6. The apparatus as recited in claim 4, wherein said first and second price optimization templates are provided according to extensible markup language (XML).
7. The apparatus as recited in claim 4, wherein said first and second price optimization templates are provided as Java applets.

8. The apparatus as recited in claim 4, wherein said first price optimization templates comprise:

a plurality of new scenario templates, configured to enable said user to prescribe scenario parameters corresponding to said optimization scenario.

9. The apparatus as recited in claim 8, wherein said plurality of new scenario templates comprises:

a category template, for specifying a product category for price optimization, said product category comprising:

a plurality of demand groups, each of said plurality of demand groups configured to categorize a set of highly correlated products, wherein said highly correlated products are normally substitute products, but may also be complementary products.

10. The apparatus as recited in claim 9, wherein said plurality of new scenario templates further comprises:

a products template, for specifying the products for sale, wherein the products for sale may span more than one of said plurality of demand groups.

11. The apparatus as recited in claim 9, wherein said plurality of new scenario templates further comprises:
- a locations template, for specifying a plurality of store groups for which the optimum prices are to be determined, wherein, when determining the optimum prices, the apparatus employs portions of said data that correspond to said plurality of store groups.
12. The apparatus as recited in claim 9, wherein said plurality of new scenario templates further comprises:
- a time horizon template, for specifying a time period for which the optimum prices are to be determined.
13. The apparatus as recited in claim 9, wherein said plurality of new scenario templates further comprises:
- an at-large rules template, for specifying rules to govern determination of the optimum prices, said rules comprising:
- maximum allowable price swing for each of the products for sale; and
- maximum allowable swing for average price of each demand group within said plurality of demand groups.

14. The apparatus as recited in claim 9, wherein said plurality of new scenario templates further comprises:

a strategy template, for specifying a merchandising performance figure of merit, and for specifying limits for changes in sales volume.
15. The apparatus as recited in claim 14, wherein options for specification of said merchandising performance figure of merit comprise net profit, said sales volume, and revenue.
16. The apparatus as recited in claim 8, wherein said first price optimization templates further comprise:

a configured rules template, configured to enable said user to prescribe a priority corresponding to each of a plurality of rules, said plurality of rules providing constraints for said optimization scenario.
17. The apparatus as recited in claim 8, wherein said first price optimization templates further comprise:

a subset re-optimization template, configured to enable said user to prescribe a maximum number of price changes to be determined by execution of said optimization scenario.

18. The apparatus as recited in claim 4, wherein said second price optimization templates comprise:

a price optimization results template, for providing
 said user with said result data corresponding to
 said optimization scenario.
19. The apparatus as recited in claim 18, wherein said result data comprises optimized values and percent change values for merchandising factors, wherein said merchandising factors comprise one or more of the following: volume, revenue, product cost, gross margin, and net profit.
20. A method for providing an interface to an apparatus for optimizing the prices of products for sale, comprising:

utilizing a computer-based scenario/results processor
 within an optimization server to present a
 sequence of data entry templates to a user,
 whereby the user specifies an optimization
 scenario, the optimization server optimizing the
 prices according to modeled market demand for the
 products and calculated demand chain costs for the
 products; said utilizing comprising:

 selectively limiting the number of prices that are
 optimized; and

generating a plurality of optimization results
templates and providing these templates to the
user, wherein the optimum prices are presented.

21. The method as recited in claim 20, wherein said
utilizing comprises:

acquiring data corresponding to the optimization
scenario from the user; and

formatting the data into a format suitable for
performing a price optimization according to the
optimization scenario.

22. The method as recited in claim 21, wherein said
acquiring comprises:

obtaining the data from the user over a data network
that employs a packet-switched protocol.

23. The method as recited in claim 21, wherein the data is
acquired from a source electronic file that is
designated by the user.

24. The method as recited in claim 20, wherein the data
entry templates and the optimization results templates
are generated in hypertext markup language (HTML).

25. The method as recited in claim 20, wherein the data entry templates and the optimization results templates are generated in extensible markup language (XML).
26. The method as recited in claim 20, wherein the data entry templates and the optimization results templates are generated as Java applets.
27. The method as recited in claim 20, wherein said utilizing comprises:
- first providing a category template, for specifying a product category for price optimization, wherein the product category comprises a plurality of demand groups;
- second providing a products template, for specifying the products for sale for which the optimum prices are to be determined, wherein the products for sale may span more than one of the plurality of demand groups; and
- third providing a time horizon template, for prescribing a time period for which the optimum prices are to be determined.
28. The method as recited in claim 27, wherein said utilizing further comprises:

fourth providing a locations template, for prescribing a plurality of store groups for which the optimum prices are to be determined, wherein said prescribing directs said employing to utilize data corresponding to the plurality of said store groups when determining the optimum prices; and

fifth providing an at-large rules template, for specifying rules to govern determination of the optimum prices, wherein the rules specify maximum allowable price swing for each of the products for sale, and maximum allowable swing for the average price of each demand group within the plurality of demand groups.

29. The method as recited in claim 28, wherein said utilizing further comprises:

sixth providing a configured rules template, for prioritizing the rules, wherein, if particular rules conflict, the optimization server optimizes the prices by progressively relaxing constraints prescribed by lower-priority rules.

30. The method as recited in claim 20, wherein said utilizing comprises:

providing a strategy template, for specifying a merchandising performance figure of merit, and for prescribing limits for changes in sales volume.

31. The method as recited in claim 30, wherein options for specifying the merchandising performance figure of merit comprise net profit, sales volume, and revenue.

32. The method as recited in claim 21, wherein said generating comprises:

providing a price optimization results template, for supplying the user with scenario results corresponding to the optimization scenario, wherein the scenario results include optimized values and percent change values for merchandising factors, the merchandising factors including one or more of the following: volume, revenue, product cost, gross margin, and net profit.